

A medical perfusion system for use in connection with the medical treatment of a patient is provided with a first type of perfusion device in the form of a blood pump adapted to pump blood through a fluid conduit connected to the patient, a second type of perfusion device in the form of a sensor adapted to sense a condition relating to the pumping of blood through the fluid conduit and to generate a sensing signal relating to the condition, and a data communications network for operatively interconnecting the perfusion devices. The perfusion system also includes means for transmitting messages in the form of digital data packets among the perfusion devices over the data communications network and a controller operatively coupled to the perfusion devices via the data communications network, the controller having an input device for accepting pump control commands relating to the blood pump from an operator.